

# Z-Tiny Pro

3-axis stabilizing gimbal  
for GOPRO

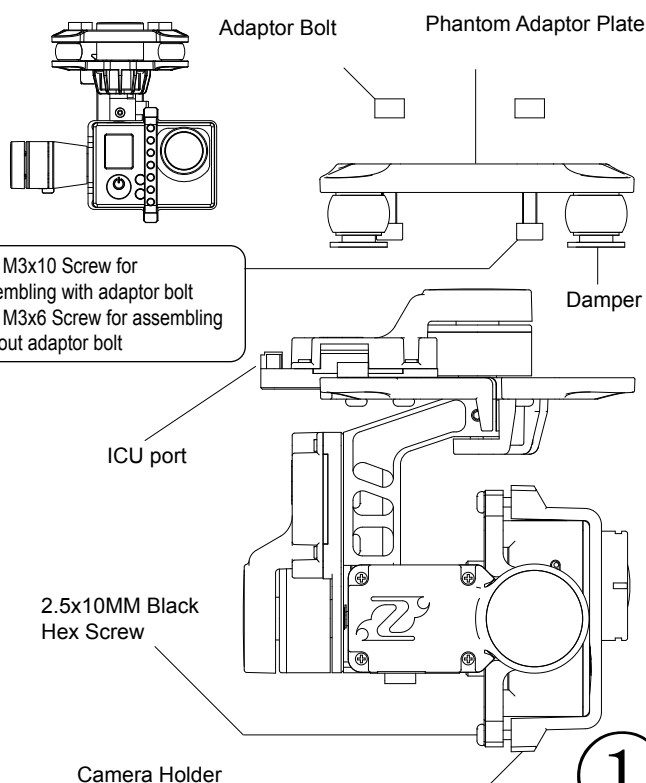
## Instruction Manual

V1.0

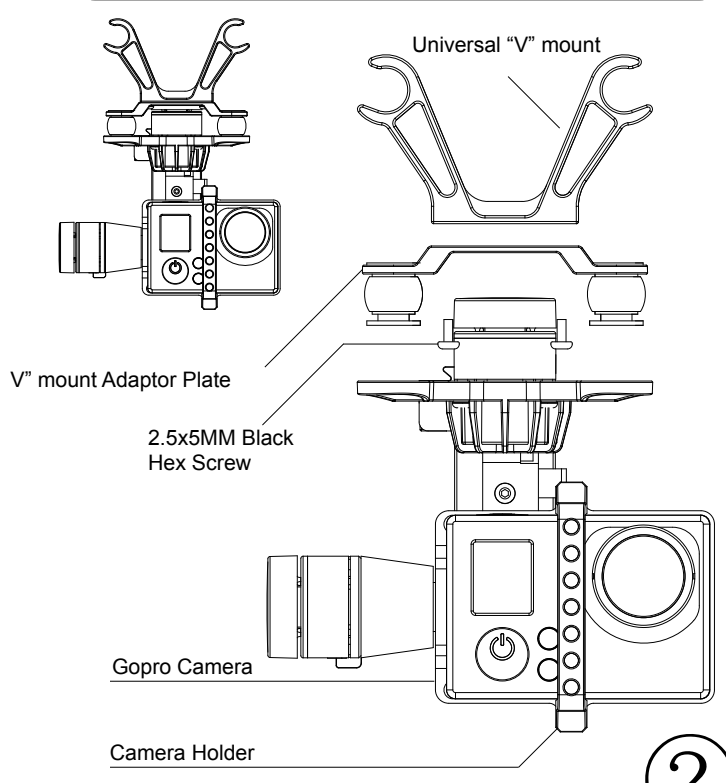
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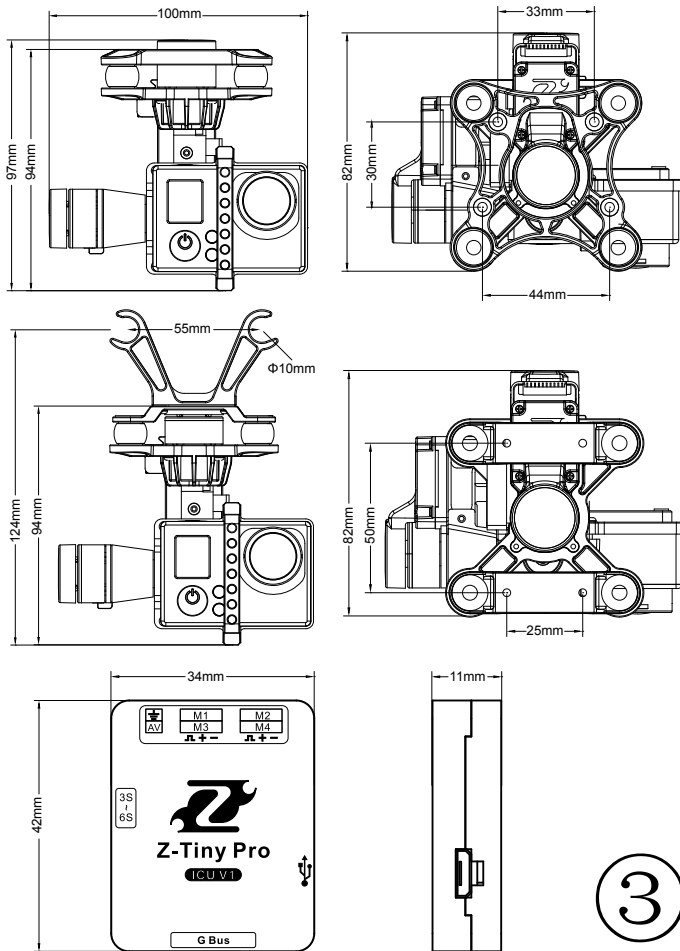
## Phantom2, Phantom2+ Gimbal Adaptor Assembly



## Universal "V" mount assembly



## Assembly Specification



## Assembly Note

- Please confirm the cable connection and GoPro camera assembly.
- Please check each axis is rotating normally.
- Connect power on. After 5 seconds, the gimbal would work normally.

## Ports Instruction

### • Power Supply:

Red cable is power input(+), black cable is input(-). With built-in Schottky Diode and BEC. The input voltage is 105V~26V, with low-voltage and over-voltage protection. The MAX output voltage is 3.5A (10S). The motionless electric power is 2.6W. If the voltage/ms is lower than 0.25V/ms, BEC could not work normally.

### • Input Ports:

The internal output voltage is 4.5V-5.2V, current is below 80mA, which fits common receiver. With built-in Schottky Diode, prevent external BEC to affect gimbal.

M1: Model Port. 3-way switch is to control different work modes.

1. Heading Following Mode (Default)
2. Locking Mode (3-axis locked)
3. FPV Mode (3-axis free)

4. GOPRO Charge: Turn on and off the 3-way switch six times (from locking mode to heading following mode ) to start charging GOPRO. Turn on and off the 3-way switch six times again to stop charging GOPRO.

M2: Tilt port control. The tilt axis keeps leveled if M2 is not connected. Under SBUS receiver mode, M2 will be SBUS receiver signal port.

M3: Roll port control. The roll axis keeps leveled if M3 is not connected.

M4: Heading port control. The gimbal keeps neutral if M4 is not connected.

Note: The default control is set joystick mode. The sensitivity, neutral point and channel are adjustable.

### • AV signal output port:

Connected to the GoPro USB port, for wireless transmission.

### • Micro USB port:

Connected to PC, for firmware upgrade, parameter adjustment, and gimbal calibration.

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## Specification

	minimum	standard	maximum	Note
Working Voltage	10.5V	16.8V	26V	
Working Current (Motionless)	140mA	160mA	230mA	
Working Current (Motion)	0.2A	0.8A	3A	
5V Output Voltage (ICU)	4.5V	5.0V	5.2V	With short circuit protection
5V Output Current (ICU)	50mA	80mA	100mA	With over load protection
Follow Accuracy (Motionless)	$\pm 0.01^\circ$		$\pm 0.03^\circ$	
Follow Accuracy (Motion)	$\pm 0.05^\circ$		$\pm 0.5^\circ$	
Tilt Motor Working Range		190°		
Roll Motor Working Range		75°		
Heading Motor Working Range		130°		
Tilt Adjustable Angle	-90°		35°	
Roll Adjustable Angle	-30°		30°	
Heading Adjustable Angle	-70°		55°	
Operation Temperature	-20℃	25℃	45℃	
ICU Module Weight	20g	22g	24g	
Gimbal Weight	140g	142g	146g	

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This device has been calibrated by the manufacturer. Warranty void if disassemble any components.

We reserve the right of final explanation and revision of the instruction manual. For the latest version, please refer to official website.

For user instruction, firmware upgrade, and more information:

[www.zhiyun-tech.com](http://www.zhiyun-tech.com)

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